AMCP Webinar Series

Innovative Approaches to Improve Transitions of Care: An update from the Hawaii Pharm2Pharm Initiative

17 September 2014

Disclaimer

Organizations may not re-use material presented at this AMCP webinar for commercial purposes without the written consent of the presenter, the person or organization holding copyright to the material (if applicable), and AMCP. Commercial purposes include but are not limited to symposia, educational programs, and other forms of presentation, whether developed or offered by for-profit or not-for-profit entities, and that involve funding from for-profit firms or a registration fee that is other than nominal. In addition, organizations may not widely redistribute or re-use this webinar material without the written consent of the presenter, the person or organization holding copyright to the material (if applicable), and AMCP. This includes large quantity redistribution of the material or storage of the material on electronic systems for other than personal use.

www.amcp.org
AMCP Activities

• Report of the 2013 AMCP Partnership Forum on Electronic Solutions to Medication Reconciliation and Improving Transitions of Care (September 2014 – JMCP)
  – (http://www.amcp.org/JMCP/2014/September/18487/1033.html)

• Key Recommendations for AMCP:
  – Encourage the implementation of electronic solutions to the MedRec processes.
  – Work with MCO stakeholders and hospitals to pilot and measure different approaches to electronic solutions to MedRec.

• Currently - one pilot program in development
  – Will measure: impact on 30-day readmissions, utilization and costs at 3 and 12 months (all-cause ER and hospital visits, adherence, evidence based medications, avoidance of high-risk medications, number and cost of medications)

AMCP Activities

• Looking for other organizations interested to partner on creating a TOC Pilot Program

• Member survey (those involved in TOC programs)
  – Learn about best practices in care transitions
  – Help encourage implementation of electronic solutions and share best practices

• Access to complete the TOC Survey:
  – https://www.surveymonkey.com/s/LTNJCQK
Today’s Speaker

Karen L. Pellegrin, PhD, MBA

Karen is Director of Continuing Education and Strategic Planning, Founding Director of the Center for Rural Health Science, and senior faculty at the Daniel K. Inouye College of Pharmacy at the University of Hawai`i at Hilo. She is PI & Project Director for the Health Care Innovation Award, funded by the CMS Innovation Center, to implement the Pharm2Pharm model in Hawai`i.

www.amcp.org

Today’s Speaker

Reece Uyeno, PharmD

Reece is the Hospital Consulting Pharmacist Manager for the Pharm2Pharm project, overseeing the inpatient component of the model state-wide. While at Kona Community Hospital, he enrolled and handed off over 200 patients to a Community Consulting Pharmacist. Reece is a graduate of the Daniel K. Inouye College of Pharmacy at the University of Hawai`i at Hilo.
Francis Chan, MT (ASCP), MPH

Francis is Director of HIE Services for Hawai‘i Health Information Exchange, working with key stakeholders to design and implement the components of HIE architecture needed to facilitate Health Information sharing among providers in the State HIE. He is leading the design and implementation of the HIT to improve the efficiency and effectiveness of the Pharm2Pharm model.

Natalie Pagoria, MD

She contributes a clinical perspective to the operations of the HHIE with particular focus on the Pharm2Pharm HIT program. Natalie earned her Doctor of Medicine degree at Loyola University Stritch School of Medicine in Chicago. After medical school Dr. Pagoria moved to Hawaii and completed an internship year with the Hawaii Residency Program Department of Surgery.
Karen L. Pellegrin, Ph.D., M.B.A.
PI/Project Director, Pharm2Pharm
University of Hawaii, Daniel K. Inouye College of Pharmacy

The vision of Pharm2Pharm

• Leverage underutilized pharmacist expertise across the continuum of care to achieve the three-part aim of the CMS Innovation Center:
  • Better care
  • Better health
  • Lower total costs

“Pharm2Pharm” = “Hospital Pharmacist to Community Pharmacist” care transition and coordination model focused on medications
Before there was Pharm2Pharm, there was The Minnesota experience...

• “Beginning in 1999, Fairview Health Services of Minneapolis/St. Paul implemented the ‘Collaborative Practice of Pharmaceutical Care’ at 6 of 15 primary care clinics, where pharmacists now play an integral role in the delivery of care”

• RESULTS:
  • Improvements in clinical outcomes
  • Reductions in cost

http://japha.org/article.aspx?articleid=1043431#Methods

Improved patient outcomes

http://japha.org/article.aspx?articleid=1043431#Methods
Reduced total cost of care (even with increase in drug costs)


Reece K. Uyeno, Pharm.D.
Hospital Consulting Pharmacist Manager, Pharm2Pharm
University of Hawaii, Daniel K. Inouye College of Pharmacy
The vision • Leveraging the underutilized community pharmacist to achieve the three-part aim of the CMS Innovation Center:

- Better care
- Better health
- Reduced costs

PHARMACIST ROLE:
- Dispense medications
- Answer clinician questions
- Manage formulary

RISK/GAP: Medication discrepancies?
RISK/GAP: Adequate medication instructions?
RISK/GAP: Patient has timely access to follow up care?
RISK/GAP: Patient picks up meds?

PHARMACIST ROLE:
- Dispense medications
- Answer patient questions

TRADITIONAL MODEL

ADDED PHARMACIST ROLE:
- Identify patients at risk
- Medication reconciliation
- Patient education
- Hand-off to community pharmacist
- Readmission reviews

ADDED PHARMACIST ROLE:
- Medication management across prescribers and pharmacies for 1 year

“Pharm2Pharm” MODEL for HIGH RISK PATIENTS
Pharm2Pharm Patient Timeline

**DISCHARGE**
- Screen/enroll
- Medication reconciliation
- Patient engagement
- Formal handoff
- Review readmissions

**COMMUNITY CONSULTING PHARMACIST**
- 12 medication management visits
- Identify & resolve drug therapy problems
- Quarterly updates to prescribers
- Better health
- Prevent ED visits
- Prevent re-admissions
- Lower total cost of care

**GOAL**

Model implementation to date

- Launched in 4 counties: Maui, Kauai, Hawaii, Honolulu
- Over 1,500 patients enrolled and handed off to Community Consulting Pharmacists
- Through intensive CQI efforts, implemented and revised
  - Standard Operating Procedures
  - “Toolkit”
  - Training

HIT progress via HHIE

- **Lab access:** Majority of physicians have authorized the Consulting Pharmacists to have access to their enrolled patients’ labs via HHIE
- **HCS med module:** Consulting Pharmacists are now using HCS to conduct preliminary medication reconciliation and maintain accurate medication list.
- **Virtual translation service:** Now available to Community Consulting Pharmacists, allowing non-English speaking patients to be enrolled

Secure messaging: All care transition documents are now being sent by the Hospital Consulting Pharmacist to the Community Consulting Pharmacist via HHIE’s secure messaging system

% of care transition documents sent from Hospital to Community Pharmacist via HHIE
HCS Medication Reconciliation and Decision Support Tool

• 14+ Robust data sources including but not limited to:
  – PBM’s
    • MedCo, Caremark, Catamaran, ExpressScripts, Argus
  – Pharmacies
    • CVS, Walgreens, Safeway
  – Insurance
    • HMSA, Wellpoint, Aetna, Humana
  – Surescripts
HCS medication module via HHIE

Longitudinal fill history screen shot: shows gaps in med use

HCS medication module via HHIE

Pill Identifier

www.amcp.org
HCS medication module via HHIE

Completed Med Rec Screen Shot: shows “inactivated med’s” (previous doses and regimens), clinician-added OTC’s and herbals

Interaction checker identifies drug-drug, drug-disease, duplicates and drug allergy interactions.
HCS medication module via HHIE

Longitudinal charting of clinical info screen shot: to correlate with med use

Printable Completed Med Rec: shows dose, route, frequency and recommended changes.
Printable Patient Education Materials

Pharm2Pharm Challenges and Lessons Learned with Health Information Exchange
Hardware/Software Challenges

• Hardware Challenges
  – Aging pharmacy equipment for users
  – Limited access to functioning computers
  – Pharmacists with limited computer skills
  – Not all programs supported by all operating systems
  – No one-size fits all solution/product i.e. Scheduling Tool, Patient Registry

• Hardware, Software and Support Process
  – Standardized Acer tablets
  – One-on-one live user training on computer and programs
  – Thorough step-by-step user guides
  – In house program development

• Lesson Learned
  – Test, test and then test again.

Network Connectivity Challenges

• Network Connectivity Challenges
  – Highly variable internet access and reliability, especially in rural settings
  – No access for Pharmacists while in the field
  – Unsecure, shared connections
  – “Bring your own device”: policies at medium-sized Pharmacies
  – Hospital Security Policies and Firewalls
  – Competing health system priorities

• Network Connectivity Solutions
  – Secure mobile Wi-Fi devices
  – Synchronous broadband internet
  – Parallel development of HIE and Meaningful Use Support

• Hardware and Network Lessons Learned
  – Need to have strong community leadership support from the start
  – Get the organizations “Compliance” team involved early
  – Get the organizations “IT Team” involved early
### Policy and Security Challenges

- **Policy and Security Challenges**
  - State Law prohibits lab from sharing lab results with pharmacist without approval of ordering provider
  - Pharmacists receiving large quantities of sensitive PHI, papers would be sent to pharmacy and sit on fax machine
  - Allowing access to PHI for only “the right patients”

- **Policy and Security Solutions:**
  - Provider authorization campaign by lab representatives and lab feed into Medication Reconciliation and Decision Support Tool
  - Direct secure email eliminates fax and ensures delivery to appropriate person
  - Strong DSA’s and user provisioning process
  - Role based access, procedural control, provider mapping, strict auditing

- **Lessons Learned:**
  - Thorough legislative review necessary early in planning process
  - Innovation is an iterative process, need to be constantly re-evaluated and revised

---

Karen L. Pellegrin, Ph.D., M.B.A.
PI/Project Director, Pharm2Pharm
University of Hawaii, Daniel K. Inouye College of Pharmacy
**Medication measures through July 2014...**

- 84% of patients’ medications were reconciled by the Community Pharmacist within 30 days post discharge
- >2,800 drug therapy problems were identified
- 44% of drug therapy problems identified were resolved by the next patient visit
- In 7% of visits with the Community Pharmacist, the patient reported medication access problems
- 39% of medication access problems were resolved by the Community Pharmacist

**Drug therapy problems by category**

- "compliance" DTPs, 663, 23%
- "effectiveness" DTPs, 650, 23%
- "safety" DTPs, 644, 22%
- "indication" DTPs, 909, 32%
Recommendations to prescribers to resolve drug therapy problems (28% implemented)

- For ADHERENCE problems:
  - Change to improve adherence, 597, 22%

- For INDICATION problems:
  - Need additional drug therapy for untreated indication, 700, 25%

- For SAFETY problems:
  - Reduce dosage to reduce risk of toxicity, 316, 11%
  - Change due to adverse drug reaction, 241, 9%

- For EFFECTIVENESS problems:
  - Increase dosage (too low to be effective), 346, 13%
  - Different drug needed (ineffective), 241, 8%
  - Discontinue unnecessary drug therapy be not indicated, 325, 12%

Total patients enrolled and handed off through March 2014: 1,157

- Average per patient acute care utilization 365 days prior to their Pharm2Pharm enrollment/hand-off: 3.1
- Total cost of acute care for these patients 365 days prior to their Pharm2Pharm enrollment/hand-off: $30.6M
- Average per patient acute care cost 365 days prior to their Pharm2Pharm enrollment/hand-off: $26,441

% of patients by race/ethnicity:
- 38% White/Caucasian
- 26% Hawaiian
- 14% Filipino
- 13% Japanese
- 3% Other Pacific Islander
- 2% Hispanic/Latino
- 0.7% Black
- 0.7% Chinese
- 0.4% American Indian
- 2% Other/unknown

% of patients by age:
- 5% 18-44
- 11% 45-54
- 20% 55-64
- 32% 65-74
- 23% 75-84
- 10% 85+
Physician Survey Results

N=51
(surveyed 250 physicians with enrolled patients)
20% response rate

Physician mean ratings of Pharm2Pharm
(1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent)

- Overall rating of the Pharm2Pharm services: 3.5
- Overall impact on your office operations: 3.1
- Overall impact on improving care: 3.4
- Assistance obtaining prior authorization for medications: 2.8
- Content of communication with you about your patients: 3.5
- Frequency of contact with you about your patients: 2.9
- Recommendations to resolve drug therapy problems: 3.6
- Identification of drug therapy problems: 3.8
- Medication reconciliation: 3.9
- Notification to you that your patient has been enrolled: 3.8
- Selection of patients enrolled: 3.8
Would you recommend the Pharm2Pharm services to other physicians / prescribers with patients at risk of medication-related hospitalization?

- No, definitely not, 0, 0%
- No, probably not, 1, 5%
- Yes, probably, 7, 39%
- Yes, definitely, 10, 56%

Patient Survey Results
N=79
### Patient report: How often did your CCP...

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating Distribution</th>
<th>Overall Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand what matters most to you?</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Spend enough time with you?</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>See/call you within 15 minutes of your appointment time?</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Answer your medication questions promptly?</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Answer your medication questions clearly?</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Seem to know the important information about your medical history?</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Show respect for what you had to say?</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Listen carefully to you?</td>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>

**Explain things in a way that was easy to understand?**

- Almost Never: 4
- Sometimes: 8
- Often: 9
- Almost Always: 5

### Patient mean ratings of CCP

(1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent)

<table>
<thead>
<tr>
<th>Service</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall rating of this pharmacist</td>
<td>4.8</td>
</tr>
<tr>
<td>Assistance getting your medications</td>
<td>4.6</td>
</tr>
<tr>
<td>Helping you remember when to take your medications</td>
<td>4.6</td>
</tr>
<tr>
<td>Explaining how to take your medications safely and correctly</td>
<td>4.7</td>
</tr>
<tr>
<td>Helping you understand the purpose of your medications</td>
<td>4.7</td>
</tr>
<tr>
<td>Helping you achieve your health goals</td>
<td>4.6</td>
</tr>
<tr>
<td>Working with your doctor to adjust your medications when needed</td>
<td>4.4</td>
</tr>
<tr>
<td>Monitoring how you are doing on your medications</td>
<td>4.7</td>
</tr>
<tr>
<td>Careful review of what medications you are taking</td>
<td>4.8</td>
</tr>
</tbody>
</table>
• **Too many positive comments to list here, but they include:**
  - She gave me a print out list of all my meds and dosages. I made copies and now carry that in my purse for emergency. This was incredibly import and valuable. Being called and checked on helped me stay on track
  - Keeps me on my toes
  - Helped a lot by discussing each medication and what it does for you or not
  - This pharmacist has kept me out of the hospital on at least 2-3 occasions. Kept me out of ER 3+ times...
  - Understanding your meds is so important. They do a super job. Every day counts.
  - Ever since I met this Pharmacist I became very interested into listening an paying attention to everything she said and I got really interested doing things I never done before. Do not stop this program there’s people out there that need this services
  - We sat down together and explained what each pill does for me. I was so thankful for him to help me back to my old self. I would never “trade” him for any other pharmacist in the world. He’s the BEST
  - My Pharmacist was extremely helpful beyond my expectations.
  - Very professional and knowledgeable. Seemed very interested in my health. I was able to communicate with her very well.
  - This program has changed my life - I have returned to my old self; I can sleep at night, fear of never waking is gone. No more inhaler and wheezing. Not so many pills and knowing when or when not to take them also the security of knowing I have someone to talk with when I have a question or problem. Thank you for my life back, and I really mean this
  - A very enlightened program. Pharmacists are underutilized. They have a wealth of experience and knowledge
Thoughts about PCMH and P2P...

- Recent finding reported in JAMA*:

  **CONCLUSIONS AND RELEVANCE** A multipayer medical home pilot, in which participating practices adopted new structural capabilities and received NCQA certification, was associated with limited improvements in quality and was not associated with reductions in utilization of hospital, emergency department, or ambulatory care services or total costs over 3 years. These findings suggest that medical home interventions may need further refinement.


- *Is medication management the missing link in achieving aims of PCMHs?*
NCQA PCMH standards
3/25/13

• PCMH 1: Enhance Access and Continuity
• PCMH 2: Identify and Manage Patient Populations
• PCMH 3: Plan and Manage Care (includes Element D below)
• PCMH 4: Provide Self-Care Support and Community Resources
• PCMH 5: Track and Coordinate Care
• PCMH 6: Measure and Improve Performance

To be the best (i.e., “level 3”) PCMH per NCQA

• Need 85-100 points
• Must pass the “must pass” elements
• Element D: Medication Management is NOT a “must pass” element
Would “must pass” be enough?

- Current standards are missing two key drug therapy problems:
  - Appropriateness / indication problems
  - Effectiveness problems

Element D: Medication Management

- Medication Reconciliation
- Patient Education
- Safety & Adherence Problems

Patient Education

Safety & Adherence Problems

Medication Reconciliation

Patient Education

Element D: Medication Management

The practice manages medications in the following ways.

1. Reviews and reconciles medications with patients/families for more than 50 percent of care transitions*
2. Reviews and reconciles medications with patients/families for more than 80 percent of care transitions
3. Provides information about new prescriptions to more than 80 percent of patients/families
4. Assesses patient/family understanding of medications for more than 50 percent of patients with date of assessment
5. Assesses patient response to medications and barriers to adherence for more than 50 percent of patients with date of assessment
6. Documents over-the-counter medications, herbal therapies and supplements for more than 50 percent of patients/families, with the date of updates

The value of the pharmacist from Minnesota to Hawai‘i

Drug Therapy Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Pharmacy2Pharm</th>
<th>Isetts et al (The Minnesota Experience)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adherence/Compliance</td>
<td>10%</td>
<td>23%</td>
</tr>
<tr>
<td>Safety</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>Indication</td>
<td>33%</td>
<td>40%</td>
</tr>
</tbody>
</table>

www.amcp.org
Acknowledgement of federal funding

• The project described is supported by Funding Opportunity Number CMS-1C1-12-0001 from Centers for Medicare and Medicaid Services, Center for Medicare and Medicaid Innovation.

• Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HHS or any of its agencies.

Questions

Raise your hand to ask verbally

Or, type your question in the ‘Questions’ area (preferred)
Thank You

For questions please contact:

Todd Sega (tsega@amcp.org)